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Patricia Klein* (klein847@umn.edu) and **Jenna Rajchgot**. *Geometric vertex decomposition and liaison.*

Geometric vertex decomposition and liaison are two frameworks that have been used to produce similar results about similar families of algebraic varieties. In this talk, we will describe an explicit connection between these approaches. In particular, we describe how each geometrically vertex decomposable ideal is linked by a sequence of elementary G-biliaisons of height 1 to an ideal of indeterminates and, conversely, how every G-biliaison of a certain type gives rise to a geometric vertex decomposition.

As a consequence, we can immediately conclude that several well-known families of ideals are glicci, including Schubert determinantal ideals, defining ideals of varieties of complexes, and defining ideals of graded lower bound cluster algebras. This connection also gives us a framework for implementing with relative ease Gorla, Migliore, and Nagel's strategy of using liaison to establish Gröbner bases. (Received March 05, 2021)